



February 14, 2006

Job No.: 0307,001.97

Mr. Kirk Veale
P.O. Box 1496
Santa Rosa, CA 95402

**Groundwater Monitoring Report - September 2005 Event
2800 Corby Avenue
Santa Rosa, California**

Dear Mr. Veale:

Please accept this as Edd Clark & Associates, Inc.'s (EC&A's) report of the September 2, 2005 groundwater monitoring event conducted at 2800 Corby Avenue (site) in Santa Rosa, California (Figure 1). Groundwater is being monitored at the request of the North Coast Regional Water Quality Control Board (NCRWQCB) because of a release of fuel hydrocarbons (FHCs) to the subsurface from underground storage tanks (USTs) formerly located at the site. The September 2005 sampling event is the nineteenth event conducted at the site since the October 2000 over-excavation in the location of the former USTs. Monitoring activities for this event included measuring depth to water (DTW) in monitoring wells MW-4, MW-5 and MW-6; collecting groundwater samples for chemical analyses from MW-5 and MW-6; evaluating historic groundwater-flow direction and gradient; evaluating the results of the laboratory analyses; and preparing this report. A copy of this report will be sent to the NCRWQCB and the Santa Rosa Fire Department (SRFD) for their review.

MW-1 was destroyed in July 2000; MW-3 was destroyed and replaced by MW-4 in 1990. With the approval of the NCRWQCB, MW-2 was eliminated from the sampling program after the March 2001 sampling event because the groundwater sample results were consistently below the analytical detection limits. Groundwater samples have not been collected from MW-4 since December 1992 because the well depth and screen interval are not consistent with the other monitoring wells and the location of the well is considered to be too distant from the former USTs to be useful for monitoring groundwater quality. A one-time detection of 0.7 micrograms per liter ($\mu\text{g/l}$) xylenes was the only analyte reported from MW-4 in the three monitoring events conducted by others between May 1990 and December 1992.

Groundwater-level Measurements

On September 2, 2005, EC&A personnel measured DTW in MW-4, MW-5 and MW-6. The DTW below the top of well casing (TOC) in each monitoring well was measured to the nearest 0.01 foot (ft) with a water-level meter. The meter was cleaned and rinsed prior to taking measurements in each well. DTW measurements were recorded after the well caps were removed and groundwater in the wells was allowed to equilibrate for a minimum of 15 minutes. DTW in MW-4, MW-5 and MW-6 was 9.86 ft, 10.10 ft and 9.88 ft, respectively; the groundwater-flow direction and gradient in the vicinity of the former USTs could not be calculated because DTW was inadvertently not

measured in MW-2. However, historical groundwater elevation data shows that groundwater flow direction during this time of year is generally to the northwest (Table 1).

Groundwater Field Logs containing DTW data are in Appendix A. The DTW data will be electronically submitted to the State GeoTracker Internet Database.

Monitoring Well Groundwater Sampling Procedures

On September 2, 2005, EC&A personnel collected groundwater samples from MW-5 and MW-6. Prior to collecting samples, the wells were purged with a submersible pump. Three well-casing volumes of groundwater were removed from both MW-5 and MW-6. Purged water was checked for the presence of free-floating product. Free-floating product was not observed in the purged water; however, a mild hydrocarbon odor was observed in water purged from MW-5. Groundwater pH, temperature and electric conductivity were recorded during purging of each well at intervals of approximately one well-casing volume. Purge volumes and groundwater-quality-parameter measurements are recorded on the Field Logs in Appendix A.

Groundwater samples were collected from MW-5 and MW-6 after groundwater parameters stabilized and the water level returned to a minimum of 80% of the initially recorded water level. The samples were collected in new single-sample disposable bailers fitted with disposable, bottom-emptying devices to minimize water degassing. The samples were transferred from the bailers to properly labeled, laboratory-supplied sterile sample containers, logged on a chain-of-custody form, placed on ice and transported to McCampbell Analytical, Inc. (MAI) for chemical analyses. MAI is a State-certified laboratory in Pacheco, California.

Decontamination Procedures

Sampling equipment was cleaned onsite with a low-phosphorous soap and water solution and double rinsed with tap water. Decontamination water and monitoring well purge water were placed in properly labeled, DOT 17H 55-gallon drums for temporary, onsite storage.

Groundwater Sample Analyses and Analytical Results

Groundwater samples were analyzed for total petroleum hydrocarbons (TPH) as gasoline (g), TPH as diesel (d), and benzene, toluene, ethylbenzene and xylenes (BTEX) by Analytical Methods SW8015Cm/8015C/8021B, and for methyl tert-butyl ether (MTBE) and other gasoline oxygenates and lead scavengers 1,2-dibromoethane (EDB) and 1,2-dichloroethane (1,2-DCA) by Analytical Method SW8260B.

In the groundwater sample collected from MW-5, TPHg and TPHd were detected at 7800 micrograms per liter ($\mu\text{g/l}$) and 870 $\mu\text{g/l}$, respectively. BTEX compounds were detected at 1100 $\mu\text{g/l}$, 42 $\mu\text{g/l}$, 320 $\mu\text{g/l}$ and 47 $\mu\text{g/l}$, respectively. MTBE, 1,2-DCA and ethanol were detected at concentrations of 1.1 $\mu\text{g/l}$, 3.6 $\mu\text{g/l}$ and 110 $\mu\text{g/l}$, respectively.

In the groundwater sample collected from MW-6, TPHg and TPHd were detected at 140 µg/l and 200 µg/l, respectively. Concentrations of BTEX were detected at 1.2 µg/l, 4.2 µg/l, 3.3 µg/l and 7.4 µg/l, respectively.

Analytical results for the monitoring well groundwater samples are summarized in Table 2 and presented on Figure 2. A complete copy of the analytical laboratory report is in Appendix B. Groundwater sample results will be electronically submitted to the State GeoTracker Internet Database.

Discussion

EC&A has conducted twenty sampling events at the site from August 2000 to September 2005; nineteen of these events were conducted since the October 2000 over-excavation. The groundwater-flow direction in the vicinity of the former USTs is bimodal, alternating between northerly to northwesterly in the dry season (seven events) or southerly to southeasterly in the wet season (twelve events; Figure 3). The southeasterly flow occurs during times of high groundwater levels (Table 1).

FHC concentrations in MW-5 fluctuate significantly with DTW and groundwater-flow direction; this well is due east of the former USTs location (Figures 2 and 4). MW-5 is cross-gradient from the former USTs when flow is to the southeast, and cross-gradient/up-gradient when flow is to the northwest. Historically, the greatest FHC concentrations in MW-5 have been detected during seasonally high water-table levels when the flow direction is to the south or southeast, suggesting that another source of FHCs may be to the north of MW-5. Generally, FHC concentrations have increased over time in MW-5; the September 2005 event resulted in the highest concentration of TPHg in MW-5 detected to date (7800 µg/l).

TPHg and TPHd concentrations in MW-6 show modest fluctuations, with the highest concentrations occurring in the spring or early summer when the well is up-gradient of the former UST excavation. Since early 2002, TPHg and TPHd concentrations in MW-6 have been gradually decreasing (Figure 5).

TPHg

TPHg concentrations in MW-5 increased significantly in January 2002, reaching 1000 µg/l for the first time since the former USTs location was over-excavated in October 2000. Since January 2002, TPHg concentrations in MW-5 have ranged from 240 µg/l (October 2002) to 7800 µg/l (September 2005). Since March of 2001, the TPHg results in MW-5 have been consistently characterized by the laboratory as "unmodified or weakly modified gasoline is significant".

Since November 2000, TPHg concentrations in MW-6 have ranged from 70 µg/l (October 2003) to 250 µg/l (April 2002). Low-groundwater level TPHg concentrations generally have been around 100 µg/l, whereas high-groundwater level concentrations have declined from 250 µg/l in April 2002 to 210 µg/l in June 2005. The TPHg results in MW-6 have been characterized by the laboratory as "unmodified or weakly modified gasoline is significant" for eight of the sampling events and as "heavier gasoline range compounds are significant (aged gasoline?)" for nine sampling events.

TPHd

Historically, the greatest TPHd concentrations have been detected in groundwater collected from MW-6 (740 µg/l, August 2000); however, concentrations of TPHd in MW-5 have exceeded those detected in MW-6 since January 2003. In September 2005, TPHd was detected in MW-5 and MW-6 at 870 µg/l and 200 µg/l, respectively. The concentration of TPHd has generally been rising in MW-5 since 2001; the September 2005 TPHd concentration in MW-5 is the highest detected to date on the site. The TPHd results in MW-5 have been characterized by the laboratory as "gasoline range compounds are significant" for sixteen of the eighteen times TPHd has been detected indicating that a substantial portion of the TPHd results are gasoline-range hydrocarbons.

In MW-6, the TPHd results have been gradually decreasing overall since 2002, and have been characterized by the laboratory as "unmodified or weakly modified diesel is significant" for six sampling events and as "diesel range compounds are significant; no recognizable pattern" and/or "gasoline range compounds are significant" for thirteen sampling events.

Benzene

Benzene has been detected in samples from MW-5 for each sampling event at concentrations ranging from 0.59 µg/l (November 2000) to 1900 µg/l (July 2003). Benzene concentrations in MW-5 increased significantly in January 2003 and have remained elevated compared to previously detected concentrations. In groundwater collected from MW-6, benzene has only been detected four times at a maximum concentration of 3.4 µg/l in April 2004.

Fuel Oxygenates

MTBE has been detected in MW-5 twelve times, starting in July 2002, at a maximum concentration of 3.1 µg/l (October 2004). TBA has been detected ten times in MW-5 since August 2000 at concentrations ranging from 6.6 µg/l (October 2004) to 36 µg/l (August 2000).

Trace concentrations of MTBE have been detected for three events in MW-6 ranging from 0.52 µg/l (October 2004) to 0.67 µg/l (October 2002). The source of the TBA and MTBE is unknown.

Lead Scavengers

Groundwater samples from MW-5 and MW-6 have been analyzed for lead scavengers since June 2001. Lead scavengers have not been detected in groundwater collected from MW-6. In MW-5, concentrations of 1,2-DCA have been consistently detected, ranging from 1.7 µg/l (January 2002) to 6.9 µg/l (October 2003). In September 2005, the 1,2-DCA concentration in MW-5 was 3.6 µg/l.

Conclusions

TPHg, TPHd and BTEX concentrations in MW-5 have increased since January 2002 and are generally significantly higher than they were in August 2000, prior to October 2000 over-excavation. A significant portion of the TPHd detected in MW-5 likely is gasoline-range hydrocarbons. MTBE and TBA have frequently been detected in MW-5 since July 2002. Prior to that time, there was only one detection of fuel oxygenates in this well. The source of the large increases in TPH and BTEX

concentrations and the subsequent appearance of MTBE in MW-5 is uncertain. In MW-6, TPHg and TPHd concentrations are relatively low and have declined since August 2000.

Recommendations

Quarterly groundwater monitoring of MW-5 and MW-6 should continue. DTW should be measured in MW-2, MW-5 and MW-6 during each event. Groundwater samples should be collected from MW-5 and MW-6 and analyzed for TPHg, TPHd and BTEX by Analytical Methods SW8015Cm/8015C/8021B, and for MTBE and other gasoline oxygenates and the lead scavengers EDB and 1,2-DCA by Method SW8260B.

EC&A anticipates that the groundwater investigation proposed in EC&A's December 21, 2004 *Workplan: Additional Soil and Groundwater Investigation*, which was approved by the NCRWQCB in their letter dated January 7, 2005, will be conducted by the end of May 2006. A report of the investigation will be submitted to the NCRWQCB within two months following the completion of site work.

Schedule

A groundwater sampling event was conducted on December 12, 2005. A report of this event will be completed by March 3, 2006. The next groundwater monitoring event is scheduled for March 2006.

Limitations

The conclusions presented in this report are professional opinions based on the information presented herein, which includes data generated by others. Whereas EC&A does not guarantee the accuracy of data supplied by third parties, we reserve the right to use this data in formulating our professional opinions. This report is intended only for the indicated purpose and project site. Conclusions and recommendations presented herein apply to site conditions existing at the time of our study. Changes in the conditions of the site property can occur with time because of natural processes or the works of man on the site or adjacent properties. In addition, changes in applicable standards can also occur as the result of legislation or from the broadening of knowledge. Accordingly, the findings of this report may be invalidated, wholly or in part, by changes beyond our control.

Thank you for allowing EC&A to provide environmental services for you. Please call John Calomiris, project manager, if you have any questions.

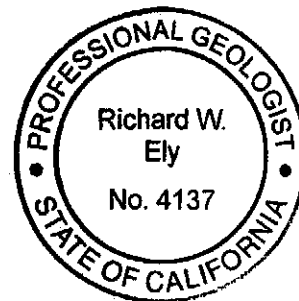
Sincerely,

Etta Jon Vanden Bosch

Etta Jon VandenBosch
Environmental Scientist

Richard Ely

Richard Ely, PG #4137
Senior Geologist



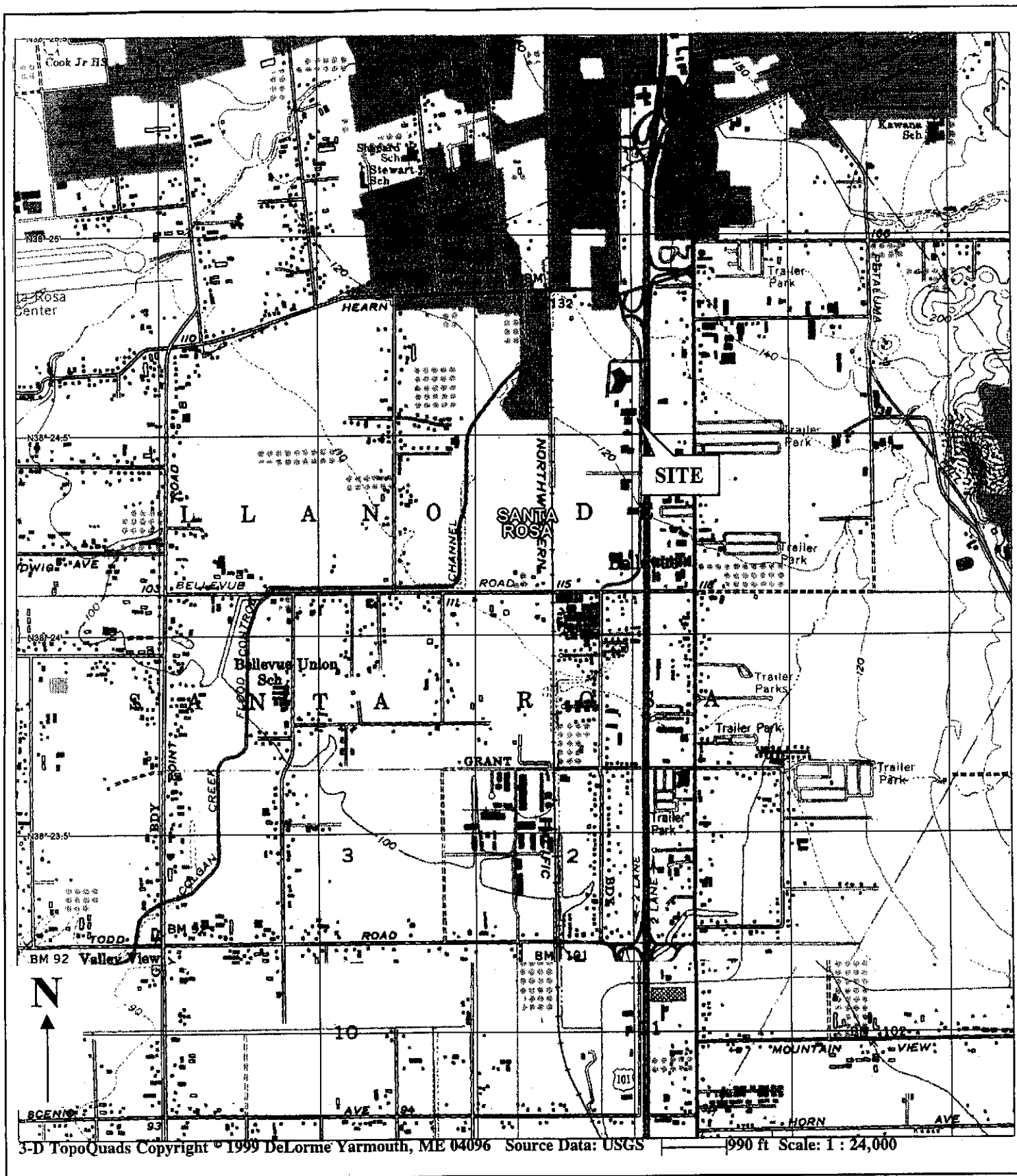
Attachments: Figure 1 - Site Location Map
Figure 2 - Site Map with 02 September 2005 Groundwater Analyses
Figure 3 - Groundwater Elevation Map, 02 September 2005
Figure 4 - Concentrations of TPHg, TPHd and Benzene in Monitoring Well MW-5
Figure 5 - Concentrations of TPHg, TPHd and Benzene in Monitoring Well MW-6

Table 1 - Monitoring Well Groundwater Elevation Data
Table 2 - Analytical Results- Groundwater Samples from Monitoring Wells

Appendix A - Groundwater Field Logs
Appendix B - Analytical Laboratory Report

cc: Joan Fleck, North Coast Regional Water Quality Control Board
Corey Vincent, Santa Rosa Fire Department

0307 QMR Sept05



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Site Location Map
2800 Corby Avenue
Santa Rosa, California

FIGURE
1

JOB NUMBER
00307,001.97

REVIEWED BY:
Lori Brown

DATE:
February 2003

REVISED DATE:

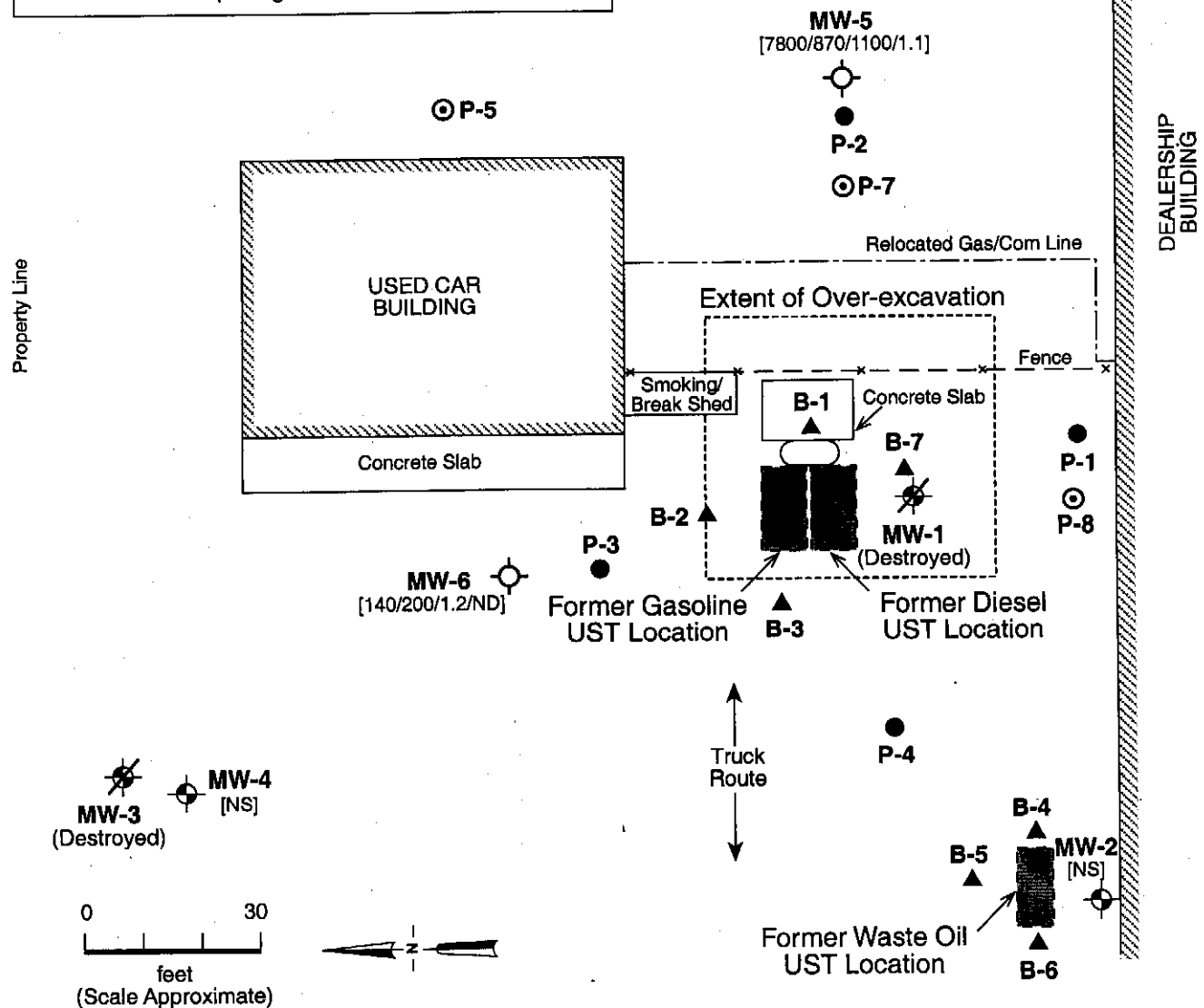
CORBY AVENUE

LEGEND

- ⊙ P-5 Proposed Soil Boring
- ▲ B-1 Soil Boring (Mar-May 90)
- P-1 Soil Boring (Oct 97)
- ⊕ Monitoring Well (Mar-May 90)
- ⊙ Monitoring Well (Jul 00)

[140/200/1.2/ND] Concentrations of
TPHg/TPHd/Benzene/MTBE
in Groundwater in µg/l:
Reporting Limits = [50/50/0.5/0.5] µg/l

NS; ND Not Sampled; Not Detected above
Reporting Limits



Reference: Based on Touchstone Development's
07/97 Plate 2, Boring and Monitoring Well Locations

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SITE MAP, with
02 September 2005 Groundwater Analyses
2800 Corby Avenue
Santa Rosa, California

FIGURE






2

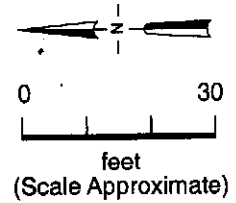
JOB NUMBER	0307,001.97	REVIEWED BY	EC&A, E.J. VandenBosch	DATE	August 1998	REVISED	November 2005	SHEET NO.	1 of 1
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(TRACE#311/RG/13NOV05)

CORBY AVENUE

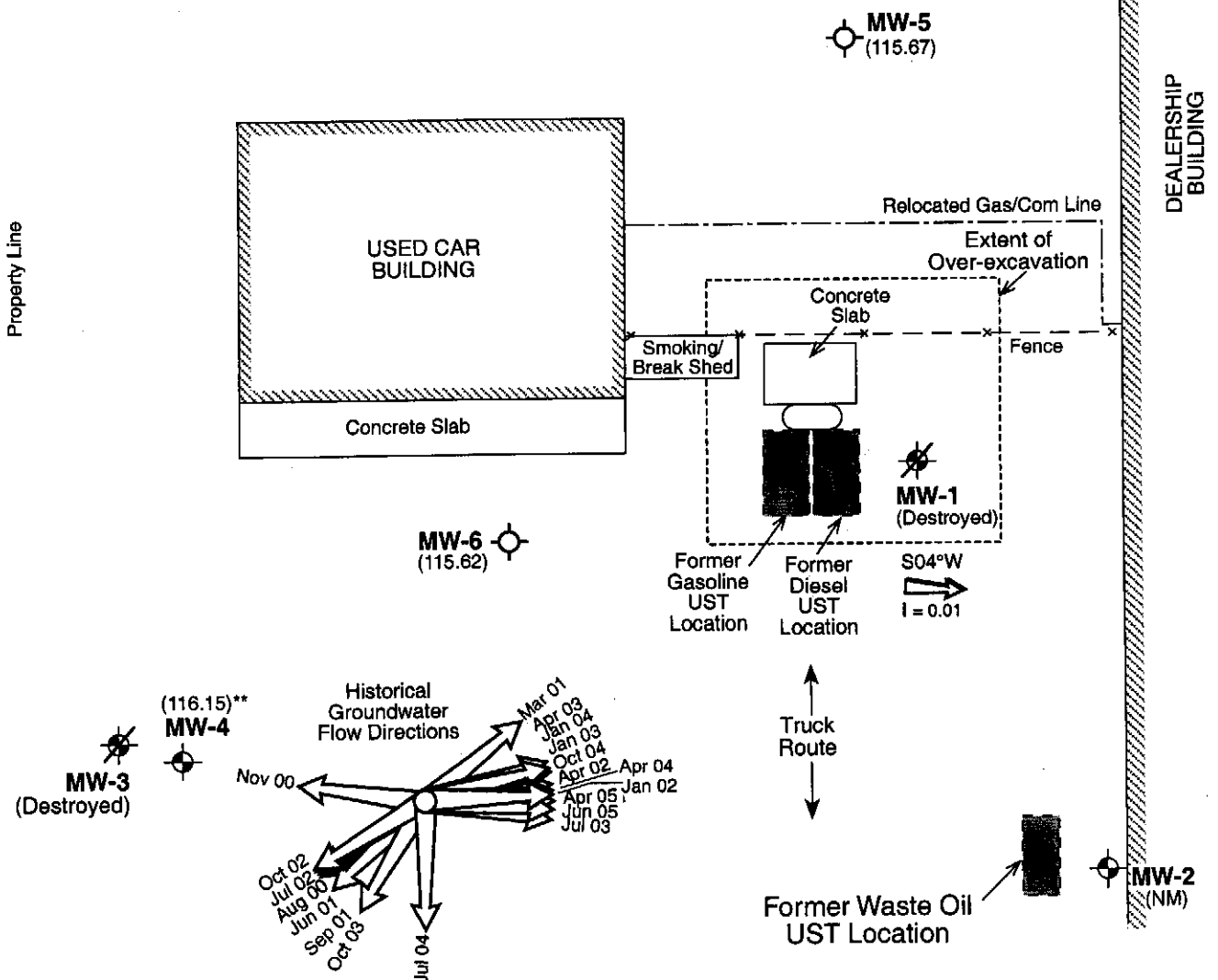
LEGEND

-  Monitoring Well (Mar-May 90)
-  Monitoring Well (Jul 00)
-  (119.19) Groundwater Elevation (feet MSL)
-  Direction of Flow
-  Gradient in ft/ft
- NM Not Measured



Notes: Groundwater flow direction and gradient could not be calculated, because DTW in MW-2 was inadvertently not measured.

** Well MW-4, which is screened from 7-17 feet bgs, was not used in calculating groundwater flow direction and gradient.



Reference:

Based on Touchstone Development's
07/97 Plate 2, Boring and Monitoring Well Locations

EDD CLARK & ASSOCIATES, INC.

ENVIRONMENTAL CONSULTANTS

GROUNDWATER ELEVATION MAP,

02 September 2005

2800 Corby Avenue
Santa Rosa, California

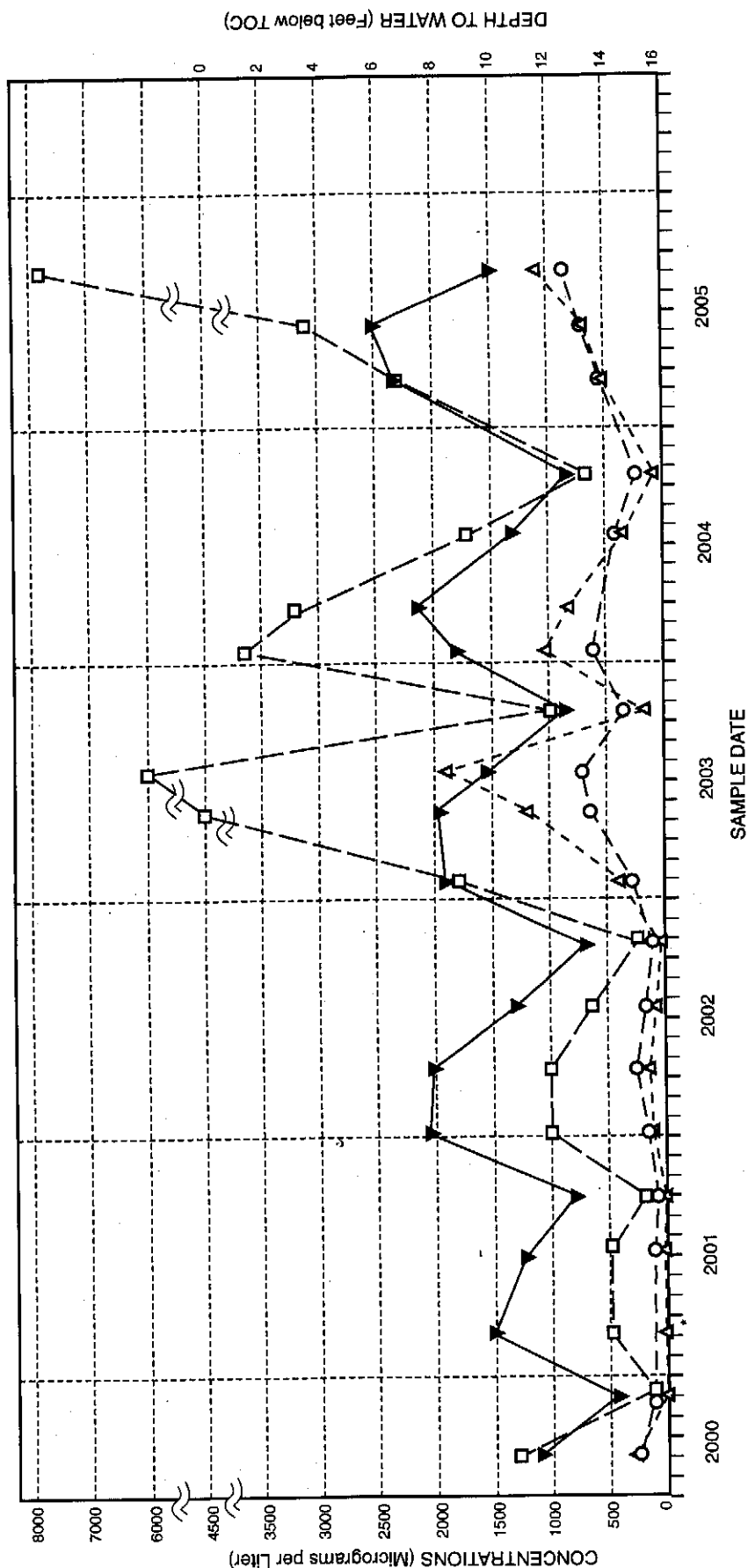
FIGURE

3

JOB NUMBER	0307,001.97	REVIEWED BY	EC&A, E.J. VandenBosch	DATE	August 1998	REVISED	November 2005	SHEET NO.	1 of 1
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(TRACE#311/RG/11Nov05)

TPHg, TPHd and BENZENE CONCENTRATIONS in MW-5



Note: * Samples collected from MW-5 and MW-6 on 05 Mar 01 and 08 Apr 04 were not analyzed for TPHd.

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CONCENTRATIONS OF TPHg, TPHd, & BENZENE,
in Monitoring Well MW-5
2800 Corby Avenue
Santa Rosa, California

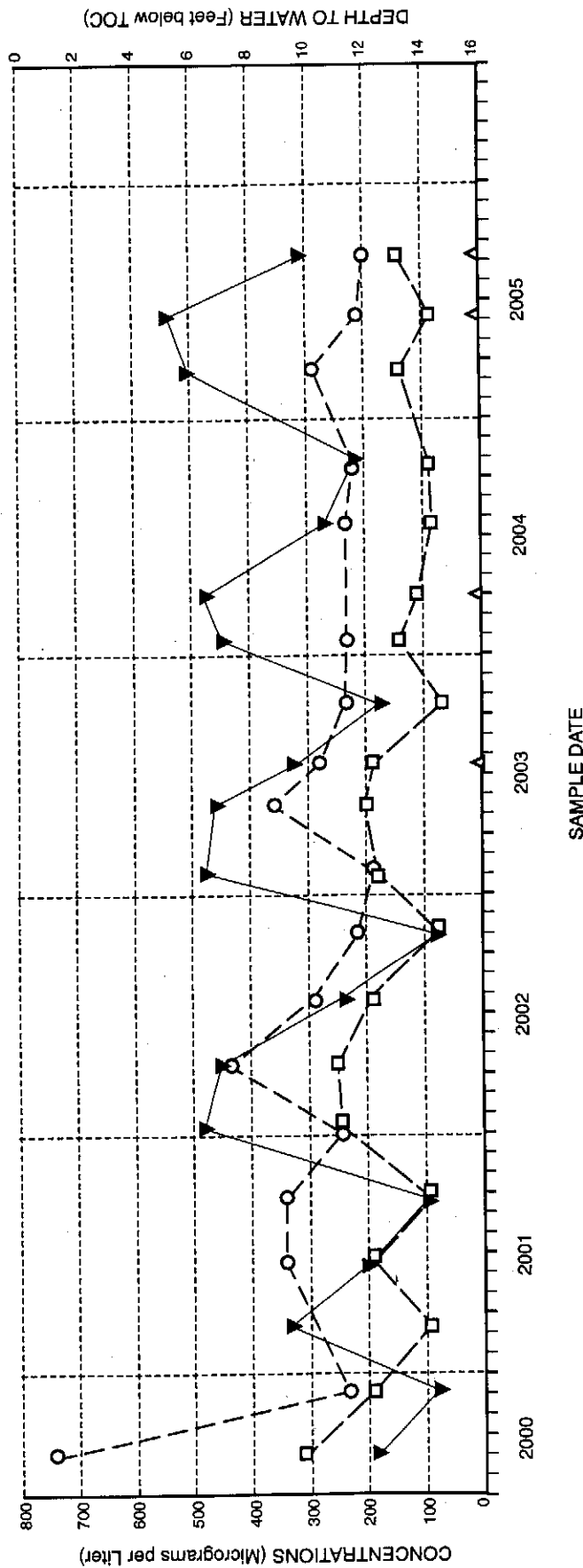
FIGURE

4

JOB NUMBER	0307,001.97	REVIEWED BY	EC&A, E.J. VandenBosch	DATE	May 2002	REVISED	November 2005	SHEET NO. 1 of 1
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(TRACE#311/RG/13Nov05)

TPHg, TPHd and BENZENE** CONCENTRATIONS in MW-6



Note: * Samples collected from MW-5 and MW-6 on 05 Mar 01 and 08 Apr 04 were not analyzed for TPHd.
 ** Prior to 08 July 03, samples collected from MW-6 have been ND<0.5 µg/l for Benzene since sampling commenced in Aug 00.

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**CONCENTRATIONS OF TPHg, TPHd, & BENZENE,
 in Monitoring Well MW-6**
 2800 Corby Avenue
 Santa Rosa, California

FIGURE

5

JOB NUMBER	0307,001.97	REVIEWED BY	EC&A, E.J. VandenBosch	DATE	May 2002	REVISED	November 2005	SHEET NO.	1 of 1
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(TRACE#311/RG/17Nov05)

**Table 1. Monitoring Well Groundwater Elevation Data
2800 Corby Avenue, Santa Rosa, California**

Well ID	Date	TOC Elevation (ft above MSL)	Depth to Water (ft below TOC)	Groundwater Elevation (ft above MSL)
MW-2	08/25/00	125.38	11.81	113.57
MW-4		126.01	11.00	115.01
MW-5		125.77	11.80	113.97
MW-6		125.50	12.36	113.14
Gradient = N35°W, 0.009 ft/ft				
MW-2	11/28/00	125.38	13.65	111.73
MW-4		126.01	11.20	114.81
MW-5		125.77	14.44	111.33
MW-6		125.50	14.43	111.07
Gradient = N08°E, 0.006 ft/ft				
MW-2	03/05/01	125.38	9.45	115.93
MW-4		126.01	6.78	119.23
MW-5		125.77	10.18	115.59
MW-6		125.50	9.30	116.20
Gradient = S39°E, 0.006 ft/ft				
MW-2	06/11/01	125.38	11.36	114.02
MW-4		126.01	10.39	115.62
MW-5		125.77	11.38	114.39
MW-6		125.50	11.97	113.53
Gradient = N33°W, 0.009 ft/ft				
MW-2	09/14/01	125.38	13.47	111.91
MW-4		126.01	12.69	113.32
MW-5		125.77	12.95	112.82
MW-6		125.50	14.10	111.40
Gradient = N43°W, 0.014 ft/ft				

**Table 1. Monitoring Well Groundwater Elevation Data
2800 Corby Avenue, Santa Rosa, California**

Well ID	Date	TOC Elevation (ft above MSL)	Depth to Water (ft below TOC)	Groundwater Elevation (ft above MSL)
MW-2	01/11/02	125.38	7.99	117.39
MW-4		126.01	4.23	121.78
MW-5		125.77	7.94	117.83
MW-6		125.50	6.49	119.01
Gradient = S06°E; 0.018 ft/ft				
MW-2	04/16/02	125.38	7.87	117.51
MW-5		125.77	8.14	117.63
MW-6		125.50	7.08	118.42
Gradient = S13°E; 0.011 ft/ft				
MW-2	07/23/02	125.38	11.13	114.25
MW-5		125.77	11.27	114.50
MW-6		125.50	11.62	113.88
Gradient = N32°W; 0.0066 ft/ft				
MW-2	10/28/02	125.38	13.64	111.74
MW-5		125.77	13.56	112.21
MW-6		125.50	14.48	111.02
Gradient = N31°W; 0.013 ft/ft				
MW-2	01/23/03	125.38	8.31	117.07
MW-5		125.77	8.53	117.24
MW-6		125.50	6.74	118.76
Gradient = S14°E; 0.020 ft/ft				
MW-2	04/25/03	125.38	7.79	117.59
MW-5		125.77	8.19	117.58
MW-6		125.50	6.76	118.74
Gradient = S17°E; 0.015 ft/ft				

**Table 1. Monitoring Well Groundwater Elevation Data
2800 Corby Avenue, Santa Rosa, California**

Well ID	Date	TOC Elevation (ft above MSL)	Depth to Water (ft below TOC)	Groundwater Elevation (ft above MSL)
MW-2	07/08/03	125.38	9.51	115.87
MW-5		125.77	9.87	115.90
MW-6		125.50	9.58	115.92
Gradient = S09°W; 0.0005 ft/ft				
MW-2	10/09/03	125.38	12.22	113.16
MW-5		125.77	12.27	113.50
MW-6		125.50	12.35	113.15
Gradient = N59°W; 0.0034 ft/ft				
MW-2	01/20/04	125.38	8.15	117.23
MW-5		125.77	8.43	117.34
MW-6		125.50	6.93	118.57
Gradient = S16°E; 0.016 ft/ft				
MW-2	04/08/04	125.38	7.09	118.29
MW-5		125.77	7.15	118.62
MW-6		125.50	6.09	119.41
Gradient = S07°E; 0.012 ft/ft				
MW-2	07/22/04	125.38	10.72	114.66
MW-5		125.77	10.74	115.03
MW-6		125.50	10.69	114.81
Gradient = S89°W; 0.0026 ft/ft				
MW-2	10/29/04	125.38	12.36	113.02
MW-5		125.77	12.72	113.05
MW-6		125.50	11.87	113.63
Gradient = S15°W; 0.007 ft/ft				

**Table 1. Monitoring Well Groundwater Elevation Data
2800 Corby Avenue, Santa Rosa, California**

Well ID	Date	TOC Elevation (ft above MSL)	Depth to Water (ft below TOC)	Groundwater Elevation (ft above MSL)
MW-5	03/10/05	125.77	6.67	119.10
MW-6		125.50	5.96	119.54
MW-2	04/08/05	125.38	5.95	119.43
MW-5		125.77	5.72	120.05
MW-6		125.50	4.72	120.78
Gradient = S01°W; 0.013 ft/ft				
MW-2	06/02/05	125.38	6.19	119.19
MW-5		125.77	6.03	119.74
MW-6		125.50	5.23	120.27
Gradient = S04°W; 0.01 ft/ft				
MW-2	09/02/05	125.38	NM	--
MW-4		126.01	9.86	116.15
MW-5		125.77	10.10	115.67
MW-6		125.50	9.88	115.62
Gradient = Not calculated				

TOC: Top of casing elevation measured relative to mean sea level (MSL)

DTW: Depth to water measured in feet from TOC

NM: Not measured

TOC elevations were surveyed on August 24, 2000, by David L. Contreras, a State-licensed surveyor

**Table 2. Analytical Results - Groundwater Samples from Monitoring Wells
2800 Corby Avenue, Santa Rosa, California**

Well ID	Date	DTW ft bgs	TPHg µg/l	TPHd µg/l	Benzene µg/l	Toluene µg/l	Ethyl- benzene µg/l	Xylenes µg/l	MTBE µg/l	TBA µg/l	1,2-DCA µg/l
MW-1 *	04/05/90**	---	100	140	2.3	ND	ND	ND	NA	NA	NA
	09/02/92**	---	770	NA	61	ND	57	33	NA	NA	NA
	12/11/92**	---	890	140	20	1	21	12	NA	NA	NA
	06/26/96**	7.07	11,000	1200	1600	4.4	830	1100	NA	NA	NA
MW-2	04/05/90**	---	150	ND	ND	ND	ND	ND	NA	NA	NA
	09/02/92**	---	ND	NA	ND	ND	ND	1	NA	NA	NA
	12/11/92**	---	ND	ND	ND	ND	ND	ND	NA	NA	NA
	08/25/00	11.81	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1.0 ⁽¹⁾	ND	NA
	11/28/00	13.65	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1.0 ⁽¹⁾	ND	NA
	03/05/01	9.45	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1.0 ⁽¹⁾	ND	NA
	05/08/90**	12.28	ND	ND	ND	ND	ND	ND	NA	NA	NA
MW-4	09/02/92**	---	ND	NA	ND	ND	ND	0.7	NA	NA	NA
	12/11/92**	---	ND	ND	ND	ND	ND	ND	NA	NA	NA
	08/25/00	11.80	1300 ^a	240 ^d	280	8.0	47	13	ND<1.0 ⁽¹⁾	36	NA
	11/28/00	14.44	120 ^j	120 ^b	0.59	3.5	ND<0.5	ND<0.5	ND<1.0 ⁽¹⁾	ND	NA
MW-5	03/05/01	10.18	480 ^a	NA	19	9.5	3.5	0.63	ND<1.0 ⁽¹⁾	ND	NA
	06/11/01	11.38	480 ^a	120 ^d	23	10	7.2	1.3	ND<1.0 ⁽²⁾	ND	4.8
	09/14/01	12.95	180 ^a	81 ^b	1.7	6.3	ND<0.5	ND<0.5	ND<1.0 ⁽²⁾	ND	3.1
	01/11/02	7.94	1000 ^a	150 ^d	110	13	62	19	ND<1.0 ⁽²⁾	ND	1.7
	04/16/02	8.14	1000 ^a	250 ^d	140	18	27	4.4	ND<0.5 ⁽²⁾	ND	3.4

Table 2. Analytical Results - Groundwater Samples from Monitoring Wells
2800 Corby Avenue, Santa Rosa, California

Well ID	Date	DTW ft bgs	TPHg µg/l	TPHd µg/l	Benzene µg/l	Toluene µg/l	Ethyl- benzene µg/l	Xylenes µg/l	MTBE µg/l	TBA µg/l	1,2-DCA µg/l
MW-5 cont.	07/23/02	11.27	640 ^a	170 ^d	88	9.4	37	5.3	1.4 ⁽²⁾	19	6.3
	10/28/02	13.56	240 ^a	100 ^d	25	5.3	11	0.88	1.1 ⁽²⁾	ND<5.0	3.4
	01/23/03	8.53	1800 ^a	270 ^d	400	16	84	20	0.90 ⁽²⁾	8.4	5.5
	04/25/03	8.19	4500 ^a	650 ^d	1200	16	150	39	1.6 ⁽²⁾	12	6.8
	07/08/03	9.87	6000 ^a	700 ^d	1900	16	310	72	ND<10 ⁽²⁾	ND<100	ND<10
	10/09/03	12.27	990 ^a	320 ^{db}	180	6.8	63	7.7	2.6 ⁽²⁾	17	6.9
	01/20/04	8.43	3600 ^a	570 ^d	1000	20	210	19	1.4 ⁽²⁾	7.7	6.3
	04/08/04	7.15	3200 ^a	NA	820	13	140	16	1.0 ⁽²⁾	8.3	4.7
	07/22/04	10.74	1700 ^a	460 ^d	370	13	110	6.7	2.0 ⁽²⁾	9.1	4.2
	10/29/04	12.72	670 ^a	250 ^{db}	97	6.2	25	1.4	3.1	6.6	3.1
	03/10/05	6.67	2300 ^a	540 ^{db}	510	13	91	16	1.4 ⁽²⁾	ND<10	3.0
	06/02/05	6.03	3100 ^a	710 ^{db}	690	20	100	13	2.1 ⁽²⁾	14	4.9
	09/02/05	10.10	7800 ^a	870 ^{db}	1100	42	320	47	1.1 ⁽³⁾	ND<5.0	3.6
	08/25/00	12.36	310 ^a	740 ^{bd}	ND<0.5	0.94	1.6	3.6	ND<1.0 ⁽¹⁾	ND	NA
MW-6	11/28/00	14.43	190 ^B	230 ^b	ND<0.5	0.71	0.70	0.71	ND<1.0 ⁽¹⁾	ND	NA
	03/05/01	9.30	92 ^b	NA	ND<0.5	ND<0.5	3.0	1.2	ND<1.0 ⁽¹⁾	ND	NA
	06/11/01	11.97	190 ^{B,j}	340 ^{db}	ND<0.5	0.66	1.7	1.1	ND<1.0 ⁽²⁾	ND	ND<0.5
	09/14/01	14.10	95 ^{b*}	340 ^A	ND<0.5	ND<0.5	1.2	0.97	ND<1.0 ⁽²⁾	ND	ND<0.5
	01/11/02	6.49	240 ^{b*}	240 ^d	ND<0.5	0.50	4.7	2.8	ND<1.0 ⁽²⁾	ND	ND<0.5
	04/16/02	7.08	250 ^{b*}	430 ^{db}	ND<0.5	0.91	3.5	3.2	ND<0.5 ⁽²⁾	ND<50	ND<0.5

Table 2. Analytical Results - Groundwater Samples from Monitoring Wells
2800 Corby Avenue, Santa Rosa, California

Well ID	Date	DTW ft bgs	TPHg µg/l	TPHd µg/l	Benzene µg/l	Toluene µg/l	Ethyl- benzene µg/l	Xylenes µg/l	MTBE µg/l	TBA µg/l	1,2-DCA µg/l
MW-6 cont.	07/23/02	11.62	190 ^{b*}	290 ^A	ND<0.5	0.78	4.4	2.2	ND<5.0 ⁽²⁾	ND<5.0	ND<5.0
	10/28/02	14.48	88 ^{b*}	210 ^b	ND<0.5	ND<0.5	1.7	0.84	0.67 ⁽²⁾	ND<5.0	ND<0.5
	01/23/03	6.74	187 ^a	190 ^d	ND<0.5	0.81	2.1	1.3	ND<0.5 ⁽²⁾	ND<5.0	ND<0.5
	04/25/03	6.76	200 ^a	360 ^A	ND<0.5	ND<0.5	5.5	2.7	ND<0.5 ⁽²⁾	ND<5.0	ND<0.5
	07/08/03	9.58	190 ^a	280 ^b	1.8	0.63	5.8	2.2	ND<0.5 ⁽²⁾	ND<5.0	ND<0.5
	10/09/03	12.35	70 ^a	230 ^A	ND<0.5	ND<0.5	1.4	0.56	0.58 ⁽²⁾	ND<0.5	ND<0.5
	01/20/04	6.93	150 ^{b*}	220 ^{A,d}	ND<0.5	0.71	1.9	0.66	ND<0.5 ⁽²⁾	ND<5.0	ND<0.5
	04/08/04	6.09	110 ^a	NA	3.4	ND<0.5	1.5	ND<0.5	ND<0.5 ⁽²⁾	ND<5.0	ND<0.5
	07/22/04	10.69	88 ^{b*}	230 ^A	ND<0.5	ND<0.5	1.9	0.85	ND<0.5 ⁽²⁾	ND<5.0	ND<0.5
	10/29/04	11.87	91 ^{b*}	220 ^{db}	ND<0.5	1.6	1.8	2.7	0.52	ND<5.0	ND<0.5
	03/10/05	5.96	140 ^{b*}	290 ^{db}	ND<0.5	0.86	2.2	2.0	ND<0.5 ⁽²⁾	ND<5.0	ND<0.5
	06/02/05	5.23	84 ^a	210 ^{db}	1.3	2.9	0.76	3.4	ND<0.5 ⁽²⁾	ND<5.0	ND<0.5
	09/02/05	9.88	140 ^a	200 ^{db}	1.2	4.2	3.3	7.4	ND<0.5 ⁽²⁾	ND<5.0	ND<0.5

Notes

DTW: Depth to water below top of well casing
TPHd: Total petroleum hydrocarbons as diesel
TPHg: Total petroleum hydrocarbons as gasoline
MTBE: Methyl tert-butyl ether
1,2-DCA: 1,2-dichloroethane
ft bgs: Feet below ground surface
µg/l: Micrograms per liter
ND: Not detected above the respective reporting limit
NA: Not analyzed

**Table 2. Analytical Results - Groundwater Samples from Monitoring Wells
2800 Corby Avenue, Santa Rosa, California**

Notes, continued

NS: Not sampled

*: MW-1 was destroyed on July 13, 2000

**: Data from April 5, 1990 through June 26, 1996 from Blakely Environmental Investigations, Inc., January 15, 1997 Remedial Action Plan for Confirmation Testing for Closure of Mitigation, Veale Investment Property, 2800 Corby Avenue, Santa Rosa, California. August 25, 2000 and later sampling performed by Edd Clark & Associates, Inc.

a: Unmodified or weakly modified gasoline is significant

A: Unmodified or weakly modified diesel is significant

b: Diesel range compounds are significant; no recognizable pattern

b*: Heavier gasoline range compounds are significant (aged gasoline?)

B: Heavier gasoline range compounds are significant

d: Gasoline range compounds are significant

e: No recognizable pattern

j: Reporting limit raised due to high MTBE content

(1): Samples analyzed for MTBE and the other gasoline oxygenates by Analytical Method SW8260B. Results not reported above were all ND.

(2): Samples analyzed for MTBE and six other gasoline oxygenates and the lead scavengers ethylene dibromide (EDB) and 1,2-dichloroethane (1,2-DCA) by Analytical Method SW8260B. Results not reported above were all ND.

(3): Samples analyzed for MTBE and six other gasoline oxygenates and the lead scavengers EDB and 1,2-DCA by Analytical Method SW8260B. Ethanol was detected at 110 µg/l; all other results not reported above were ND.

Appendix A

Groundwater Field Logs

DAILY FIELD RECORD

Page 1 of _____

Project and Task Number: <u>0307</u>	Date: <u>9/2/05</u>
Project Name: <u>Prestige Auto</u>	Field Activity: <u>Ground Water Monitor</u>
Location: <u>2800 Corby Ave, Santa Rosa</u>	Weather: <u>Sunny, Cool, Calm</u>
Time of OVM Calibration: _____	

Name	Company	Time In	Time Out
<u>R. Johnson</u>	<u>EC & A</u>		

DRUM ID	DESCRIPTION OF CONTENTS AND QUANTITY	LOCATION
<u>5</u>	<u>1 New drum left on site</u>	<u>Behind detail shop</u>

TIME	DESCRIPTION OF ACTIVITIES
<u>11:30</u>	<u>Depart from office</u>
<u>11:46</u>	<u>Arrive on site, locate & open wells, allow for equilibration</u>
<u>11:50</u>	<u>Set up decan station</u>
<u>11:56</u>	<u>Take Pre DTL</u>
	<u>M4 - slight depressurization when opened</u>
<u>12:05</u>	<u>Purge Volume calculations</u>
<u>12:14</u>	<u>Begin purging wells in order</u>
<u>12:40</u>	<u>allow for recharge, break down purge event, H₂O transfer</u>
<u>1:15</u>	<u>Begin sampling wells in order</u>
<u>1:28</u>	<u>close & lock wells, back to office</u>
	<u>Post DTL</u>
	<u>MW-5 - 9.00</u>
	<u>MW-6 - 9.00</u>

FIELD LOG

<input checked="" type="checkbox"/> GROUNDWATER	<input type="checkbox"/> SURFACE WATER	<input type="checkbox"/> DOMESTIC WATER	<input type="checkbox"/> IRRIGATION WATER	<input type="checkbox"/> WELL DEVELOPMENT
Project No: 0307		Field point name: MW-5		
Global ID: T0609700571		Well depth from TOC: 30'		
Project location: 2800 Corby Ave		Well diameter: <input checked="" type="checkbox"/> 2" <input type="checkbox"/> 4" <input type="checkbox"/> 6" <input type="checkbox"/> Other:		
Date: 9/2/05		Product level from TOC: ND		
Time: 11:46		Water level from TOC: 10.10		
Recorded by: R. Johnson		Screened interval:		
Purge time (duration):		Well elevation (TOC):		

WEATHER

Wind: 0-5 mph	Precip. in last 5 days: N
---------------	---------------------------

VOLUME OF WATER TO BE REMOVED BEFORE SAMPLING

<input checked="" type="checkbox"/> 2" well = 0.17 gal/ft 19.9	<input type="checkbox"/> 6" well = 1.47 gal/ft	Gallons in 1 well volume: 3.4
<input type="checkbox"/> 4" well = 0.66 gal/ft	<input type="checkbox"/> " well = gal/ft	Total gallons removed: 10.2 Well volumes removed: 3

CALIBRATION

Parameter	Time	Calibration	Before Sampling	Time	After Sampling
EC:					

FIELD MEASUREMENTS

Time	pH	EC (x1000)	Temp °F	Case Volumes/ Gallons	Appearance
12:30	6.71	898.5	77.7	1 3.4	Mild Sulfur odor
12:32	6.68	912.8	71.5	2 6.8	low turb
12:35	6.76	901.0	70.9	3 10.2	No sheen
				1	

Notes: "H" odor - mild - detected when sampling

Water level after purging below TOC:	80% of original water level below TOC: 4
Water level before sampling below TOC: 900	
Appearance of sample:	Time: 1:25

<input type="checkbox"/> Bailer:	Type:	GPM:	<input checked="" type="checkbox"/> Pump: ES-40	Type: Submersible	GPM: 1-2
<input type="checkbox"/> Dedicated:	Type:	GPM:	Decontamination method: Liquinox wash, double rinse		

Sample analysis:	<input checked="" type="checkbox"/> TPHg	<input checked="" type="checkbox"/> TPHd	<input type="checkbox"/> TPH	<input checked="" type="checkbox"/> BTEX	<input checked="" type="checkbox"/> 7 oxygenates	<input checked="" type="checkbox"/> Lead scavengers	<input type="checkbox"/> VOCs	<input type="checkbox"/> Nitrates
EPA Method:								

Other:
LABORATORY: <input type="checkbox"/> McCampbell Analytical <input type="checkbox"/> Other:

FIELD LOG

<input checked="" type="checkbox"/> GROUNDWATER	<input type="checkbox"/> SURFACE WATER	<input type="checkbox"/> DOMESTIC WATER	<input type="checkbox"/> IRRIGATION WATER	<input type="checkbox"/> WELL DEVELOPMENT
Project No: 0307		Field point name: MW-6		
Global ID: T0609700571		Well depth from TOC: 30'		
Project location: 2800 Corby Ave		Well diameter: <input checked="" type="checkbox"/> 2" <input type="checkbox"/> 4" <input type="checkbox"/> 6" <input type="checkbox"/> Other:		
Date: 9/2/05		Product level from TOC: ND		
Time: 11:46		Water level from TOC: 9.88		
Recorded by: R. Johnson		Screened interval:		
Purge time (duration):		Well elevation (TOC):		

WEATHER

Wind: 0-5 mph	Precip. in last 5 days: 0
---------------	---------------------------

VOLUME OF WATER TO BE REMOVED BEFORE SAMPLING

<input checked="" type="checkbox"/> 2" well = 0.17 gal/ft 20.12	<input type="checkbox"/> 6" well = 1.47 gal/ft	Gallons in 1 well volume: 3.4
<input type="checkbox"/> 4" well = 0.66 gal/ft	<input type="checkbox"/> " well = gal/ft	Total gallons removed: 10.2 Well volumes removed: 3

CALIBRATION

Parameter	Time	Calibration	Before Sampling	Time	After Sampling
EC:					

FIELD MEASUREMENTS

Time	pH	EC (x1000)	Temp °F	Case Volumes/ Gallons	Appearance
12:10	6.79	16.67	70.5	11 3.4	Low turb
12:17	6.69	3173	70.4	21 6.8	No shen
12:20	6.79	476.7	70.1	31 10.2	No odor
				1	

Notes:

Water level after purging below TOC:	80% of original water level below TOC: 4
Water level before sampling below TOC: 9.00	
Appearance of sample:	
Time: 1:15	

<input type="checkbox"/> Bailer:	Type:	GPM:	<input checked="" type="checkbox"/> Pump: ES-40	Type: Submersible	GPM: 1.2
<input type="checkbox"/> Dedicated:	Type:	GPM:	Decontamination method: Liquinox wash, double rinse		

Sample analysis:	<input checked="" type="checkbox"/> TPHg	<input checked="" type="checkbox"/> TPHd	<input type="checkbox"/> TPH	<input checked="" type="checkbox"/> BTEX	<input checked="" type="checkbox"/> 7 oxygenates	<input checked="" type="checkbox"/> Lead scavengers	<input type="checkbox"/> VOCs	<input type="checkbox"/> Nitrates
EPA Method:								

Other:

LABORATORY: ☐ McCampbell Analytical ☐ Other:

APPENDIX B

Analytical Laboratory Report



McC Campbell Analytical, Inc.

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
Website: www.mcccampbell.com E-mail: main@mcccampbell.com

Edd Clark & Associates, Inc. 320 Professional Center Ste. 215 Rohnert Park, CA 94928	Client Project ID: 2800 Corby Ave.	Date Sampled: 09/02/05
		Date Received: 09/06/05
	Client Contact: Ronen Johnson	Date Reported: 09/12/05
	Client P.O.:	Date Completed: 09/16/05

WorkOrder: 0509120

September 16, 2005

Dear Ronen:

Enclosed are:

- 1). the results of 2 analyzed samples from your 2800 Corby Ave. project,
- 2). a QC report for the above samples
- 3). a copy of the chain of custody, and
- 4). a bill for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions please contact me. McC Campbell Analytical Laboratories strives for excellence in quality, service and cost. Thank you for your business and I look forward to working with you again.

Yours truly,

Angela Rydelius, Lab Manager





110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
Website: www.mccampbell.com E-mail: main@mccampbell.com

Extraction method: SW3510C Analytical methods: SW8015C Work Order: 0509120

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	µg/L
	S	NA	NA

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified diesel is significant; b) diesel range compounds are significant; no recognizable pattern; c) aged diesel? is significant); d) gasoline range compounds are significant; e) unknown medium boiling point pattern that does not appear to be derived from diesel; f) one to a few isolated peaks present; g) oil range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; k) kerosene/kerosene range/jet fuel range; l) bunker oil; m) fuel oil; n) stoddard solvent/mineral spirit.

**McC Campbell Analytical, Inc.**

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Telephone : 925-798-1620 Fax : 925-798-1622
Website: www.mcccampbell.com E-mail: main@mcccampbell.com

Edd Clark & Associates, Inc. 320 Professional Center Ste. 215 Rohnert Park, CA 94928	Client Project ID: 2800 Corby Ave.	Date Sampled: 09/02/05
		Date Received: 09/06/05
	Client Contact: Ronen Johnson	Date Extracted: 09/08/05
	Client P.O.:	Date Analyzed: 09/08/05

Oxygenated Volatile Organics + EDB and 1,2-DCA by P&T and GC/MS*

Extraction Method: SW5030B

Analytical Method: SW8260B

Work Order: 0509120

Lab ID	0509120-001B	0509120-002B			Reporting Limit for DF =1	
Client ID	MW-5	MW-6				
Matrix	W	W				
DF	1	1			S	W

Compound	Concentration				ug/kg	µg/L
tert-Amyl methyl ether (TAME)	ND	ND			NA	0.5
t-Butyl alcohol (TBA)	ND	ND			NA	5.0
1,2-Dibromoethane (EDB)	ND	ND			NA	0.5
1,2-Dichloroethane (1,2-DCA)	3.6	ND			NA	0.5
Diisopropyl ether (DIPE)	ND	ND			NA	0.5
Ethanol	110	ND			NA	50
Ethyl tert-butyl ether (ETBE)	ND	ND			NA	0.5
Methanol	ND	ND			NA	500
Methyl-t-butyl ether (MTBE)	1.1	ND			NA	0.5

Surrogate Recoveries (%)

%SS1:	87	110			
Comments					

* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference.

h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) sample diluted due to high organic content/matrix interference; k) reporting limit near, but not identical to our standard reporting limit due to variable Encore sample weight; m) reporting limit raised due to insufficient sample amount; n) results are reported on a dry weight basis; p) see attached narrative.



McC Campbell Analytical, Inc.

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Telephone : 925-798-1620 Fax : 925-798-1622
Website: www.mccampbell.com E-mail: main@mccampbell.com

QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Water

QC Matrix: Water

WorkOrder: 0509120

EPA Method: SW8021B/8015Cm			Extraction: SW5030B			BatchID: 17859			Spiked Sample ID: 0509095-010A	
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	LCS / LCSD
TPH(btex) [£]	ND	60	112	114	1.42	110	116	5.32	70 - 130	70 - 130
MTBE	ND	10	103	104	1.24	92.1	92.9	0.835	70 - 130	70 - 130
Benzene	1.2	10	88.5	87.8	0.649	87.5	88.9	1.66	70 - 130	70 - 130
Toluene	ND	10	100	99.8	0.211	90	90.8	0.909	70 - 130	70 - 130
Ethylbenzene	ND	10	102	101	1.19	92.3	93.4	1.16	70 - 130	70 - 130
Xylenes	ND	30	103	100	3.28	94.7	94.7	0	70 - 130	70 - 130
%SS:	121	10	95	97	1.38	93	93	0	70 - 130	70 - 130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 17859 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0509120-001A	9/02/05 1:25 PM	9/09/05	9/09/05 12:26 PM	0509120-002A	9/02/05 1:15 PM	9/09/05	9/09/05 4:54 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = $100 * (MS - Sample) / (Amount Spiked)$; RPD = $100 * (MS - MSD) / ((MS + MSD) / 2)$.

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

£ TPH(btex) = sum of BTEX areas from the FID.

cluttered chromatogram; sample peak coelutes with surrogate peak.

N/A = not applicable or not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.



McC Campbell Analytical, Inc.

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Website: www.mcccampbell.com E-mail: main@mcccampbell.com

QC SUMMARY REPORT FOR SW8015C

W.O. Sample Matrix: Water

QC Matrix: Water

WorkOrder: 0509120

EPA Method: SW8015C		Extraction: SW3510C			BatchID: 17854			Spiked Sample ID: N/A		
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	LCS / LCSD
TPH(d)	N/A	1000	N/A	N/A	N/A	101	103	1.73	N/A	70 - 130
%SS:	N/A	2500	N/A	N/A	N/A	97	99	2.72	N/A	70 - 130
All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions: NONE										

BATCH 17854 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0509120-001C	9/02/05 1:25 PM	9/06/05	9/07/05 5:53 PM	0509120-002C	9/02/05 1:15 PM	9/06/05	9/07/05 7:00 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = $100 * (MS - Sample) / (Amount Spiked)$; RPD = $100 * (MS - MSD) / ((MS + MSD) / 2)$.

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

DHS Certification No. 1644

oe QA/QC Officer

**McC Campbell Analytical, Inc.**110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
Website: www.mcccampbell.com E-mail: main@mcccampbell.com**QC SUMMARY REPORT FOR SW8260B**

W.O. Sample Matrix: Water

QC Matrix: Water

WorkOrder: 0509120

EPA Method: SW8260B		Extraction: SW5030B			BatchID: 17853			Spiked Sample ID: 0509095-010B		
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	LCS / LCSD
tert-Amyl methyl ether (TAME)	ND	10	88.6	90.1	1.65	84.2	87.7	4.06	70 - 130	70 - 130
t-Butyl alcohol (TBA)	ND	50	97.8	100	2.70	87.7	94.1	7.04	70 - 130	70 - 130
1,2-Dibromoethane (EDB)	ND	10	91.1	93.2	2.34	89.9	92.8	3.17	70 - 130	70 - 130
1,2-Dichloroethane (1,2-DCA)	ND	10	103	105	1.60	103	108	4.68	70 - 130	70 - 130
Diisopropyl ether (DIPE)	ND	10	117	117	0	116	118	1.65	70 - 130	70 - 130
Ethanol	ND	500	101	113	10.9	112	111	0.418	70 - 130	70 - 130
Ethyl tert-butyl ether (ETBE)	ND	10	92.2	94.7	2.72	88.3	93	5.11	70 - 130	70 - 130
Methanol	ND	2500	102	102	0	101	101	0	70 - 130	70 - 130
Methyl-t-butyl ether (MTBE)	ND	10	97.2	101	3.46	87.4	91	4.05	70 - 130	70 - 130
%SS1:	94	10	105	105	0	104	103	0.764	70 - 130	70 - 130
All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions: NONE										

BATCH 17853 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0509120-001B	9/02/05 1:25 PM	9/08/05	9/08/05 3:41 AM	0509120-002B	9/02/05 1:15 PM	9/08/05	9/08/05 4:23 AM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

 $\% \text{ Recovery} = 100 * (\text{MS} - \text{Sample}) / (\text{Amount Spiked}); \text{RPD} = 100 * (\text{MS} - \text{MSD}) / ((\text{MS} + \text{MSD}) / 2).$

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

Laboratory extraction solvents such as methylene chloride and acetone may occasionally appear in the method blank at low levels.

DHS Certification No. 1644

QC QA/QC Officer

Chain of Custody Report

P.O. Box 3039, Rohnert Park, CA 94927
Tel: (707) 792-9500 (800) 474-1448 Fax: (707) 792-9504

E-mail in EDF for Upload to Geotracker: RI

Yes ☒ No ☐ Initials

Samplers Signature: R. Johnson

[illegible]

McCampbell Analytical, Inc.

110 Second Avenue South, #D7
Pacheco, CA 94553-5560
(925) 798-1620



CHAIN-OF-CUSTODY RECORD

WorkOrder: 0509120 ClientID: ECAR EDF: YES

Report to: Ronen Johnson TEL: (707) 792-9500 **Bill to:** Accounts Payable
Edd Clark & Associates, Inc. FAX: (707) 792-9504 Edd Clark & Associates, Inc.
320 Professional Center Ste. 215 ProjectNo: 2800 Corby Ave. 320 Professional Center Ste.215
Rohnert Park, CA 94928 PO: Rohnert Park, CA 94928
Requested TAT: 5 days

Date Received: 09/06/2005
Date Printed: 09/19/2005

Sample ID	ClientSampleID	Matrix	Collection Date	Hold	Requested Tests (See legend below)														
					1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

0509120-001	MW-5	Water	09/02/2005	<input type="checkbox"/>	B	A	A	C											
0509120-002	MW-6	Water	09/02/2005	<input type="checkbox"/>	B	A	A	C											

Test Legend:

1	9-OXYS_W	2	G-MBTX_W	3	PREDF REPORT	4	TPH(D)_W	5	
6		7		8		9		10	
11		12		13		14		15	

Prepared by: Melissa Valles

Comments: GI# T0609700571

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.